

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

Claims 1 and 2 (Cancelled)

3. (Currently Amended) The apparatus according to Claim ~~4~~6, wherein the means for pressing the weather stripping includes an actuator which selectively forces the application plate towards the receiving surface.

Claims 4 and 5 (Cancelled)

6. (Previously Presented) An apparatus for applying weather stripping to a motor vehicle body, the body having an elongated receiving surface with a profile, the weather stripping comprising a thin wing having a bonding surface corresponding to the receiving surface and a hollow longitudinal tube connected to the wing, the apparatus comprising:

an application plate for application of the bonding surface of the weather stripping to the receiving surface;

means for pressing the weather stripping against the receiving surface;

means for guiding the application plate over a trajectory along the profile of the receiving surface; and

guide means comprising first means of referencing the body of the vehicle with respect to the apparatus, wherein

the guide means comprises programmable articulated mechanical means for displacing the application plate and means for programming the articulated mechanical means to adapt the trajectory of the application plate to different profiles corresponding to different vehicles,

the application plate is selectively connected to and disconnected from the articulated mechanical means and comprises a support and an application roller for application of the weather stripping to the receiving surface, the application roller rolling on a rolling surface of the thin wing on a side of the wing opposite the bonding surface,

the application roller rotates freely with respect to the support and is rotated by a drive element carried by the articulated mechanical means,

the bonding surface of the weather stripping is coated with an adhesive material that is protected by a protective element, and

the application plate includes means for peeling the protective element from the weather stripping, the means for peeling comprising a peeling roller for winding the protective element, rotating freely on the support, and rotated by the drive element.

7. (Currently Amended) The apparatus according to Claim 46, wherein the application plate comprises second means of referencing for positioning a downstream end of the weather stripping in a predetermined reference position with respect to the application roller.

8. (Previously Presented) An apparatus for applying weather stripping to a motor vehicle body, the body having an elongated receiving surface with a profile, the weather stripping comprising a thin wing having a bonding surface corresponding to the receiving surface and a hollow longitudinal tube connected to the wing, the apparatus comprising:

an application plate for application of the bonding surface of the weather stripping to the receiving surface;

means for pressing the weather stripping against the receiving surface;

means for guiding the application plate over a trajectory along the profile of the receiving surface; and

guide means comprising first means of referencing the body of the vehicle with respect to the apparatus, wherein

the guide means comprises programmable articulated mechanical means for displacing the application plate and means for programming the articulated mechanical means to adapt the trajectory of the application plate to different profiles corresponding to different vehicles,

the application plate is selectively connected to and disconnected from the articulated mechanical means and comprises a support and an application roller for application of the weather stripping to the receiving surface, the application roller rolling on a rolling surface of the thin wing on a side of the wing opposite the bonding surface, and

the application plate comprises second means of referencing for positioning a downstream end of the weather stripping in a predetermined reference position with respect to the application roller, the second means of referencing including

at least one first arm articulated on the support, and
an indexing finger connected to the first articulated arm, the indexing finger being displaceable between an indexing position, engaging the hollow tube at the downstream end of the weather stripping when the weather stripping is in the reference position, and a release position, where the indexing finger is released.

9. (Previously Presented) The apparatus according to Claim 8, wherein the indexing finger is urged elastically towards the indexing position, and including an actuator carried by the articulated mechanical means and selectively moving the indexing finger towards the release position.

10. (Previously Presented) An apparatus for applying weather stripping to a motor vehicle body, the body having an elongated receiving surface with a profile, the weather stripping comprising a thin wing having a bonding surface corresponding to

the receiving surface and a hollow longitudinal tube connected to the wing, the apparatus comprising:

an application plate for application of the bonding surface of the weather stripping to the receiving surface;

means for pressing the weather stripping against the receiving surface;

means for guiding the application plate over a trajectory along the profile of the receiving surface; and

guide means comprising first means of referencing the body of the vehicle with respect to the apparatus, wherein

the guide means comprises programmable articulated mechanical means for displacing the application plate and means for programming the articulated mechanical means to adapt the trajectory of the application plate to different profiles corresponding to different vehicles,

the application plate is selectively connected to and disconnected from the articulated mechanical means and comprises a support and an application roller for application of the weather stripping to the receiving surface, the application roller rolling on a rolling surface of the thin wing on a side of the wing opposite the bonding surface,

the application plate comprises second means of referencing for positioning a downstream end of the weather stripping in a predetermined reference position with respect to the application roller, and

the application plate comprises upstream guide means for an upstream part of the weather stripping at an end opposite a downstream end, the upstream guide means being connected to the support and comprising

first and second rollers rolling respectively over the rolling surface and the bonding surface, and

third and fourth rollers with shafts respectively parallel and perpendicular to shafts of the first and second rollers.

11. (Previously Presented) An apparatus for applying weather stripping to a motor vehicle body, the body having an elongated receiving surface with a profile, the weather stripping comprising a thin wing having a bonding surface corresponding to the receiving surface and a hollow longitudinal tube connected to the wing, the apparatus comprising:

a plurality of application plates for application of the bonding surface of the weather stripping to the receiving surface;

means for pressing the weather stripping against the receiving surface;

means for guiding the application plate over a trajectory along the profile of the receiving surface;

guide means comprising first means of referencing the body of the vehicle with respect to the apparatus, wherein

the guide means comprises programmable articulated mechanical means for displacing the application plate and means for programming the articulated mechanical means to adapt the trajectory of the application plate to different profiles corresponding to different vehicles, and

the application plate is selectively connected to and disconnected from the articulated mechanical means and comprises a support and an application roller for application of the weather stripping to the receiving surface, the application roller rolling on a rolling surface of the thin wing on a side of the wing opposite the bonding surface, and

the application plate comprises second means of referencing for positioning a downstream end of the weather stripping in a predetermined reference position with respect to the application roller;

a feed conveyor; and

a return conveyor, wherein

the plurality of application plates carries the weather stripping in the reference position and are arranged on the feed conveyor in predetermined positions, and

the articulated mechanical means is programmed to connect to the application plates of the feed conveyor before positioning of the weather stripping, to deposit the application plates on the return conveyor, and to disconnect from the application plates once the weather stripping positioning is finished.

12. (Previously Presented) A method for applying weather stripping to a motor vehicle body, using the apparatus according to Claim 11, including:

- a. programming the articulated mechanical means to adapt the trajectory of the application plate to the profile corresponding to the vehicle to be treated;
- b. preparing the plurality of application plates carrying the weather stripping in the reference position in predetermined positions on the feed conveyor;
- c. referencing the body of the vehicle with respect to the apparatus;
- d. displacing the articulated mechanical means and connecting the articulated mechanical means to prearranged application plates on the feed conveyor;
- e. displacing the articulated mechanical means and application of the downstream end of the weather stripping to one end of the receiving surface;
- f. displacing an indexing finger towards the release position;
- g. positioning the weather stripping over all of the receiving surface by displacing the application plate along the profile;
- h. displacing the articulated mechanical means and depositing the application plate on the return conveyor;
- i. displacing the articulated mechanical means and the application plate;
- j. repeating steps c to i for other similar vehicles;
- k. periodically, adding new application plates to the feed conveyor and ejecting used application plates from the return conveyor, in masked time with respect to steps c to i; and
- l. resuming at step a when switching to a different vehicle.